July 6, 1948. W. JOSSELYN 2,444,447

HINGED HANDLE FOR UTENSILS

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Fig. 1

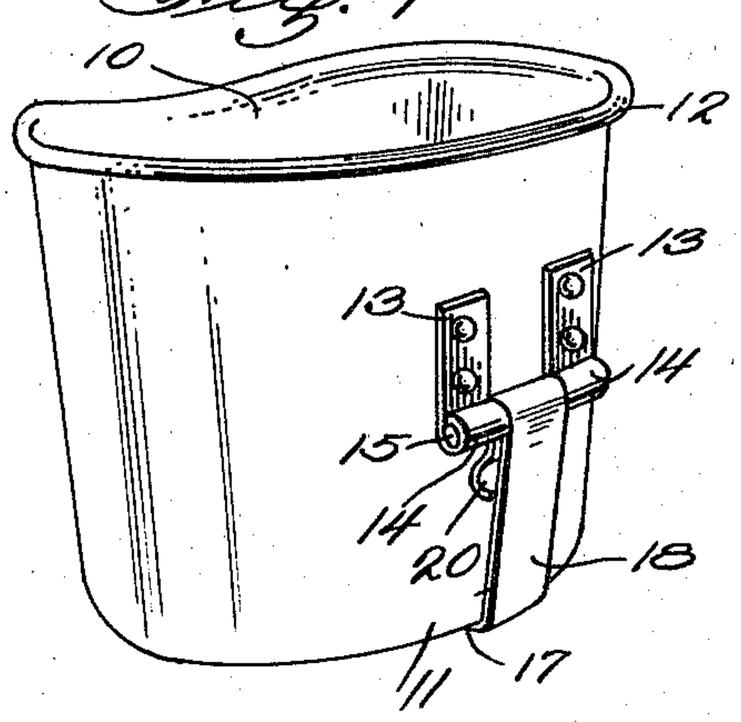


Fig. 2

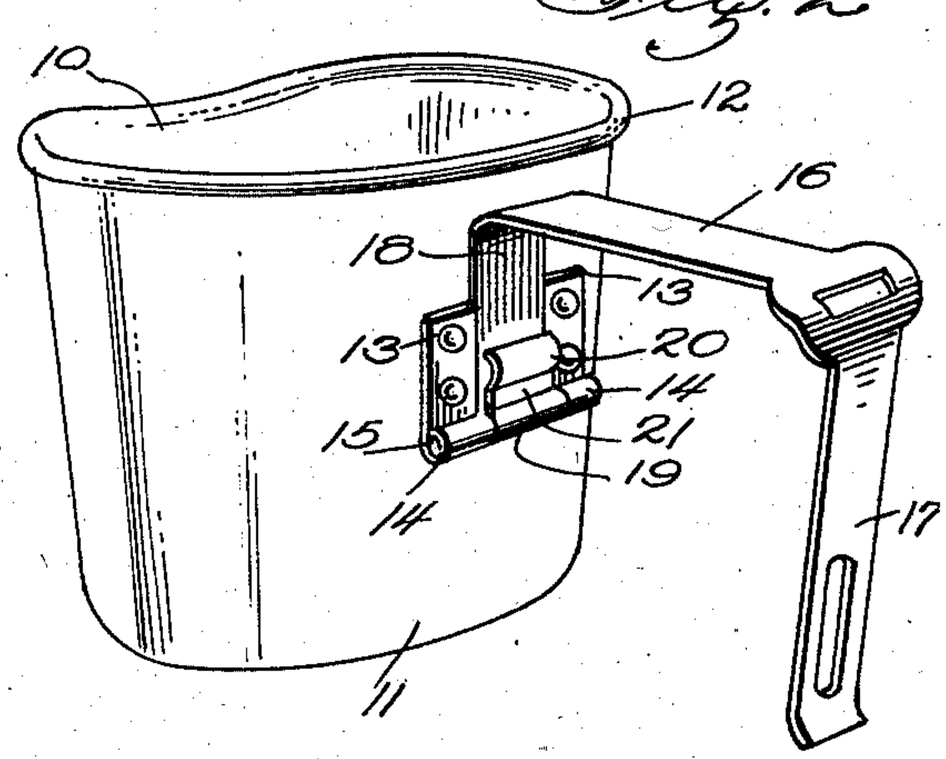


Fig. 3

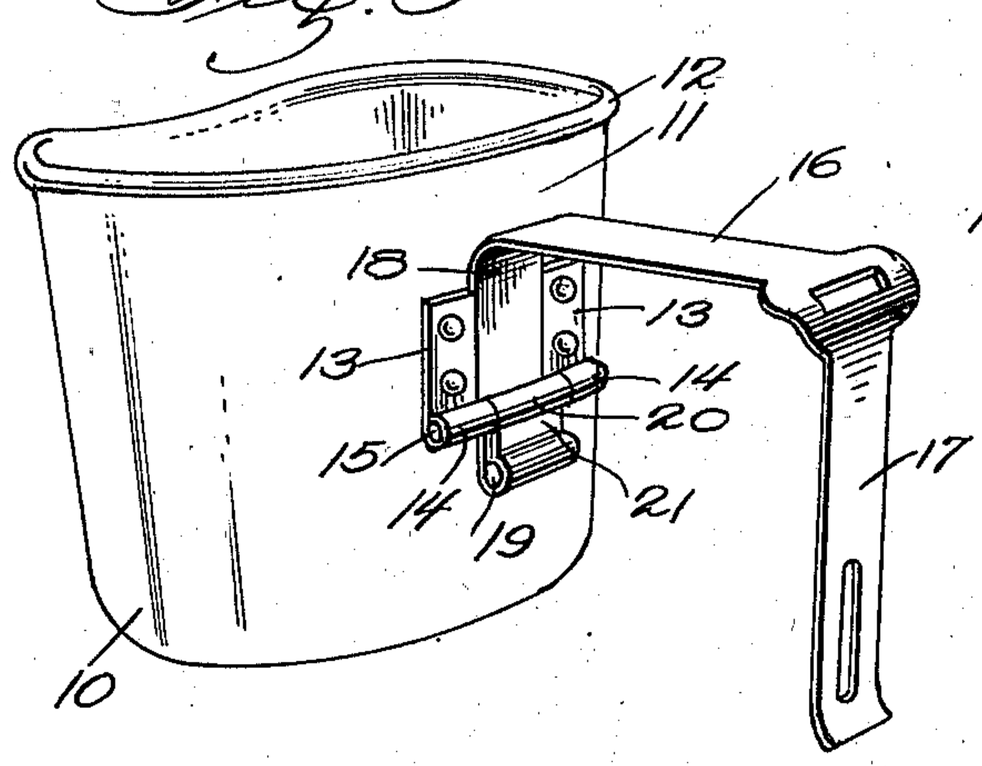
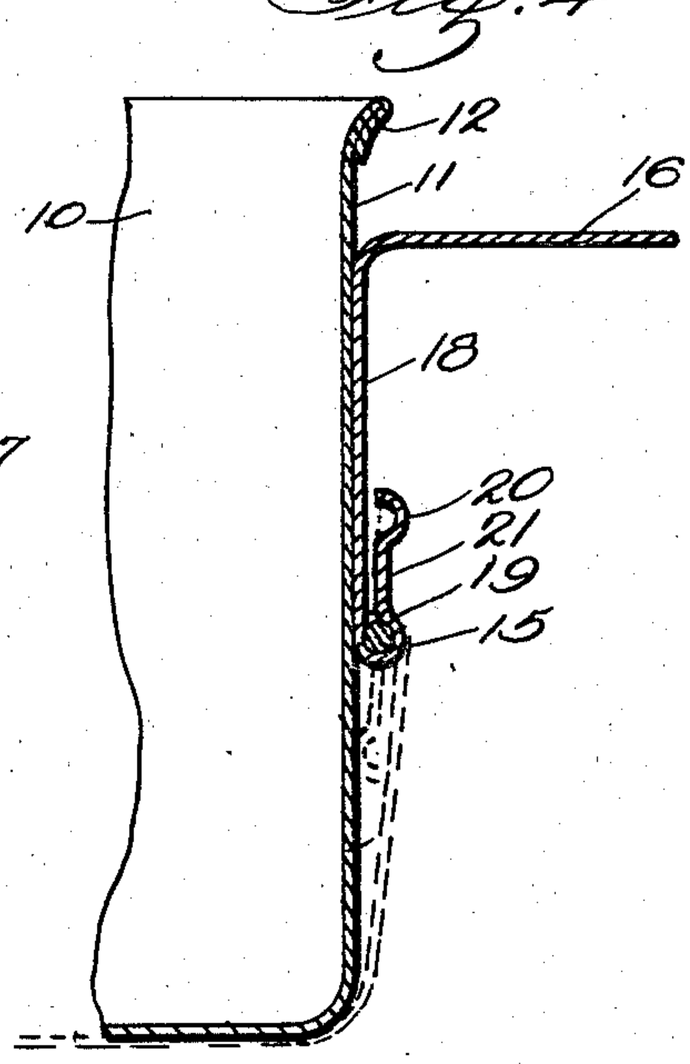


Fig. 4



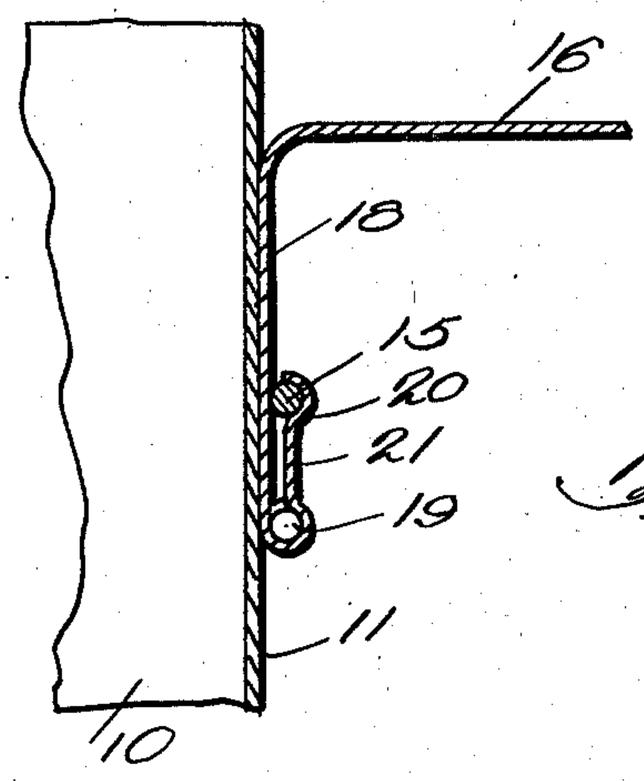


Fig. 5

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HINGED HANDLE FOR UTENSILS

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The invention described herein if patented may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

My invention relates to handles for canteen cups or similar utensils and more particularly to a hinged handle adapted to be swung between operative and inoperative positions having means for supporting the handle in operative position on the cup with portions thereof held in cooperative engagement with the cup to lock the handle against pivoting and a resilient portion permitting engagement and disengagement of the handle in non-pivotal operative position.

The handles on canteen cups of the type now in universal use by the armed forces are pivotally mounted on a side wall of the cup so that they may be swung between an inoperative position in which they nest along the walls of the cup when the cup is not in use and an upright operative position for supporting the cup while it is being used. These handles are provided with a sliding lock on the hinge arm which may be moved into and out of engagement with a pair of upwardly extending lugs secured to the walls of the cup for locking the handle in operative position or unlocking it preparatory to swinging it to inoperative position. In general, these cups have proved satisfactory, but it has been found that the sliding lock accidentally becomes partly disengaged quite frequently after the handle has been locked in operative position, and when the cup is being filled, or almost immediately after it has been filled, the weight of the contents on the partly disengaged lock causes it to slip completely out of engagement, thus allowing the cup to upset and the contents to spill on the holder of the cup or very likely on others in the immediate vicinity or on other food on the dispensing table. To overcome these disadvantages, I have devised a hinged handle and a means for locking the same in operative position which eliminates the need for a sliding lock and as a result eliminates the possibility of accidental disengagement thereof and the consequent spilling of the contents of the cup with the attendant waste and annoyance which are bound to occur when canteen cups of the present manufacture are used.

It is accordingly an object of my invention to provide a new and improved hinged handle for a canteen cup or similar utensil which has a hinge knuckle formed in the free end of the hinge arm for supporting the handle on a hinge pin secured to the walls of the cup in free pivotal engagement therewith, and a second hinge knuckle

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spaced from the first and adapted to support the handle in operative position on the hinge pin with the portions of the handle extending on either side of the second knuckle snugly engaging the walls of the cup so that pivotal movement of the handle is prevented when the handle is supported by this knuckle.

Another object of the invention is the provision of a new and improved hinged handle for a canteen cup or similar utensil which has a hinge knuckle for supporting the handle on a hinge pin secured to the cup in free pivotal engagement therewith and a second knuckle for releasably supporting the handle in upright operative position.

Still another object of the invention is the provision of a new and improved hinged handle for a canteen cup or similar utensil which has a hinge arm with a free end bent back upon itself to form a hinge knuckle on the end of the hinge arm for securing the handle to a hinge pin in free pivotal engagement therewith, and with a second knuckle formed in the extended free end spaced from the first and adapted to support the handle in operative position on the hinge pin with the portions of the handle extending above and below the second knuckle firmly engaging the walls of the cup so that pivotal movement of the handle is prevented when the handle is supported by this knuckle.

A further object of the invention is the provision of a new and improved hinged handle for a canteen cup or similar utensil which has a pair of hinge knuckles formed in the hinge arm of the handle for supporting the handle on a hinge pin secured to the walls of the cup alternately in free pivotal engagement therewith or locked in an upright operative position and a resilient portion for normally urging the knuckles into pin-engaging position, but yieldable to permit parting of the knuckles so that the handle may be shifted to bring one knuckle out of engagement with the hinge pin and the other into engagement with the pin, so that the handle may be shifted at will to support the same in operative or inoperative position.

A still further object of the invention is the provision of a new and improved hinged handle for a canteen cup or similar utensil which has means integral with the handle for locking the same in operative position so that the need for the separate locking devices used for holding the hinged handles of the prior art in operative position is eliminated, the possibility of accidental unlocking of the handle inherent in such devices

is obviated, the constructon greatly simplified, and the cost of manufacture reduced without sacrificing durability or simplicity in operation.

The invention is particularly adapted for connecting handles to canteen cups of the type now in use by the armed forces and will be described in detail with reference thereto, but it is to be understood that it may be used on all utensils upon which it is desired to secure a hinged handle. The invention is illustrated in the accompanying drawing in which

Figure 1 is a perspective view of a canteen cup with its handle in inoperative position.

Figure 2 is a perspective view of a canteen cup with its handle positioned for locking the same in operative position.

Figure 3 is a perspective view of a canteen cup with the handle locked in operative position.

Figure 4 is a fragmentary cross-sectional view taken through the handle-attaching support, with the handle positioned for locking the same in operative position.

Figure 5 is a fragmentary cross-sectional view taken through the handle attaching support, with the handle locked in operative position.

Referring to the drawings wherein, for the purpose of illustration, I have shown my new and improved handle applied to a canteen cup, the utensil comprises a sheet metal body or cup 10 of generally arcuate shape in horizontal cross-section and having vertical walls 11 terminating in an outwardly flaring lip and beaded edge 12. Riveted or otherwise suitably secured to the vertical wall 11 of the cup 10 at an intermediate point are a pair of spaced apart handle support mounting plates 13 having rolled ends 14 in which the ends of a handle attaching support or hinge pin 15 are permanently secured.

The handle proper is constructed from corrosion-resisting bar or strap metal, and is formed with horizontal and vertical hand-grip portions 16 and 17 respectively, and a hinge arm 18 depending from the horizontal hand grip portion 16. The free end of the hinge arm 18 is rolled back upon itself to form an expansible hinge knuckle 19 on the free end of the hinge arm, adapted to be received on the hinge pin 15 in free pivotal engagement therewith. A second expansible hinge knuckle 20, likewise adapted to be engaged on the hinge pin 15, and upwardly spaced from knuckle 19 by a spacing strip 21, as most clearly shown in Figures 4 and 5, is also formed in the extended free end of the hinge arm. Both of these knuckles are located on the back or inwardly facing side of the hinge arm 18, so that a plain surface is presented by the outwardly facing side of the hinge arm. After the handle has been formed, it is tempered so that the knuckles 19 and 20 will be resiliently urged to engage the support 15, but yet will be sufficiently yieldable to permit their engagement and disengagement from the support when that is desired, and the vertical hand grip portion 17 will firmly press against the front vertical wall of the cup when the handle is folded to inoperative position as shown in Figure 1, to releasably lock the handle in that position.

In assembled relation, the hinge arm is positioned between the two handle support mounting plates 13 with the handle support or hinge pin 15 passing through one or the other of the hinge knuckles 19 or 20 and permanently locked in position by crimping or pressing the rolled ends 14 of the plates 13 upon the ends of the pin.

When the hinge knuckle 19 located on the end of the hinge arm 18 is engaged on the support or hinge pin 15, the handle is freely pivotable from the nested position shown in Figure 1 to the unlocked operative position shown in Figure 2. To lock the handle in this position, a downward force is applied on the handle in a direction perpendicular to the axis of its pivotal movement and sufficient to force the knuckle 19 out of engagement with the pin 15 against the resilience of the free end of the hinge arm, and to cause the hinge arm 18 and its bent back free end 21 to slide downwardly on the pin until the knuckle 20 is brought into engagement with the support 15, as best shown in Figures 3 and 5. When this knuckle 20 is engaged upon the support, the outwardly facing plain surface of the hinge arm 18 is held in firm abutting engagement with the vertical wall 11 of the cup at a point intermediate the ends of the hinge arm and spaced from hinge pin 15, so that the latter is prevented from pivoting about the support 15, and the handle is rigidly but releasably locked in upright operative position. In this position of the handle the cup may be safely carried by the handle without the possibility of the handle becoming unlocked.

To move the handle to unlocked position, an upward force is applied thereto sufficient to cause the knuckle 20 to part and allow the pin to pass between the hinge arm 18 and its bent back end 21 and snap into the knuckle 19. The handle may then be swung to nested position preparatory to placing the cup in its carrier.

It will, of course, be obvious that the resilience of the bent back portion of the hinge arm 18 must be such that the knuckles 19 and 20 may be easily brought into and out of engagement with the support 15, but nevertheless the knuckle 20 must be sufficiently resistant to parting to prevent it from becoming disengaged from the support 15 by the pressure of the weight of the contents of the cup.

Although I have described a specific type of handle particularly adapted for use on canteen cups, it will be obvious that handles of this type may be used on utensils of all kinds where it is desired to provide such utensils with a hinged handle adapted to be releasably locked in operative or inoperative position; therefore, my invention is not to be limited to the particular embodiment shown and described, but is to be interpreted to include all those modifications and rearrangements of parts necessary in adapting the handle to use on other types of utensils and coming within the scope of the appended claims.

I claim:

1. In a utensil of the class described, a handle attaching support secured to said utensil, a handle, a hinge arm on said handle having a free end bent back upon itself, said bent back end being conformed to define a hinge knuckle at the bend of the hinge arm adapted to releasably engage said support for securing said handle thereto in free pivotal engagement with respect to said utensil, and a second knuckle on the free end of said hinge arm resiliently supported in spaced relation from the first knuckle and adapted to releasably engage said support for securing said handle on said utensil with the portions of said hinge arm on either side of said second hinge knuckle held in cooperative engagement with a wall of said utensil to prevent pivotal movement of said handle on said second knuckle and releasably lock the same in operative position.

2. In a utensil of the class described, a handle attaching support secured to said utensil, a han-

dle, a hinge arm on said handle having a free end bent back upon itself, said bent back end being conformed to define a hinge knuckle at the bend of the hinge arm adapted to releasably engage said support for securing said handle thereto in free pivotal engagement with respect to said utensil, and a second knuckle on the free end of said hinge arm spaced from the first knuckle and adapted to releasably engage said support for securing said knuckle on said utensil with the portions of said hinge arm on either side of said second hinge knuckle held in cooperative engagement with a wall of said utensil to prevent pivotal movement of said handle on said second knuckle and releasably lock the same in operative position, said turned back end including a resilient portion normally urging said knuckles into engagement with said support, said resilient portion being yieldable to adapt said knuckles for manual engagement and disengagement with said support for shifting said handle to bring said second knuckle into and out of engagement with said support.

3. In a utensil of the class described, a handle attaching support secured to said utensil, a handle, a hinge arm on said handle having a free end bent back upon itself, said bent back end being conformed to define a hinge knuckle at the bend of the hinge arm adapted to releasably engage said support for securing said handle thereto in free pivotal engagement with respect to said utensil, a spacing portion, a second knuckle on the free end of said hinge arm and separated from the first knuckle by said spacing portion and adapted to releasably engage said support for securing said handle on said utensil with the portions of said hinge arm on either side of said second knuckle held in cooperative engagement with

a wall of said utensil to prevent pivotal movement of said handle on said second knuckle and lock the same in upright operative position and a resilient portion normally urging said knuckles into engagement with said support, said resilient portion adapting said knuckle for manual engagement and disengagement with said support for shifting said handle to bring said second knuckle into and out of engagement with said support.

4. In a utensil of the class described, a hinge pin secured to said utensil, a handle having a hinge arm adapted to pivot around said hinge pin, two knuckles on the free end of said hinge arm, said knuckles being spaced longitudinally on said hinge arm and adapted to selectively and releasably engage said hinge pin, said hinge arm being shiftable perpendicularly to the axis of pivotal movement of said hinge arm from a position wherein one of said knuckles pivotally engages said hinge pin to a position wherein the other knuckle non-pivotally engages said hinge pin, said free end of said hinge arm being in said second-named position in abutting engagement with said utensil at a point spaced from said hinge pin, whereby relative rotation of said utensil and said handle in the direction of such point of abutment is prevented in said second-named position.

WINSOR JOSSELYN.

REFERENCES CITED

The following references are of record in the file of this patent:

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